

Abstract of the Disclosure

A method for forming fine patterns and a using the method for forming gate electrodes of a semiconductor device are provided. The gate electrodes are formed by: forming a gate insulation layer over a semiconductor wafer; forming a conductive layer for the gate electrodes over the gate insulation layer; forming a low-dielectric layer over the conductive layer for the gate electrodes; forming a photoresist pattern whose width is equal to the exposure limit on the low-dielectric layer; patterning the low-dielectric layer using the photoresist pattern as a mask; removing the photoresist pattern; shrinking the low-dielectric pattern; and patterning the conductive layer for gate electrodes and the gate insulation layer using the shrunken low-dielectric pattern as a mask, thereby forming the gate electrodes.